DOCUMENT RESUME

ED 294 775 SO 018 593

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TITLE The Honolulu Symphony In-School Ensembles.
INSTITUTION Hawaii State Dept. of Education, Honolulu. Office of Instructional Services.
REPORT NO RS-85-7385
PUB DATE Jan 85
NOTE 32p.
PUB TYPE Guides - Classroom Use - Materials (For Learner) (051) -- Guides - Classroom Use - Guides (For Teachers) (052)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Class Activities; *Concerts; Elementary Education; Learning Activities; Musical Instruments; *Music Education; *Orchestras; *School Community Programs
IDENTIFIERS *Music Ensembles

ABSTRACT

The Honolulu (Hawaii) Symphony Orchestra's commitment to education includes young people's concerts and in-school ensembles. The purpose of this booklet is to enhance the educational potential of in-school concerts through the presentation of information about the orchestra and music related concepts. Part 1 describes the orchestra's personnel, the in-school ensembles' purposes and compositions, and the differences between orchestras and ensembles. Part 2 explains: (1) audience responsibility and listening skills; (2) ensemble instruments in terms of the string, woodwind, brass, and percussion families; and (3) suggested elementary level pre-concert and post-concert class activities. Part 3 contains a source list for obtaining pictures of musical instruments, along with an annotated list of 12 films, recordings, filmstrips, and books that can be used as resource materials. Pictures of musical instruments are included. (JHP)

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The Honolulu Symphony In-School Ensembles

SO 018503

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Office of Instructional Services, General Education Branch • Department of Education • State of Hawaii • RS 85-7385
January 1985

ACKNOWLEDGMENTS

Department of Education, State of Hawaii
Francis M. Hatanaka, Superintendent
Honolulu Symphony Society
National Endowment for the Arts
State Foundation on the Culture and the Arts
Women's Association of the Honolulu Symphony
Hawaii State Legislature

THE HONOLULU SYMPHONY

Donald Johanos, *Music Director*

PREFACE

The primary aim of the Honolulu Symphony is to serve communities and schools as effectively as possible. Its commitment to education includes, in addition to the Young People's Concerts, the In-School Ensembles. The purpose of this booklet is to enhance the educational potential of these in-school presentations through a discussion of some of the related concepts.

Based on questions that are often asked, the first half of the booklet provides general information about the orchestra's personnel, its typical schedule and some of the challenges that confront a professional musician. The second half deals with specifics including descriptions of instruments of the ensembles, and suggestions for classroom activities. The booklet concludes with a listing of relevant annotated resource materials. An attempt has been made to explain topics and concepts clearly enough for non-musicians to understand. If this has not been fully achieved, the district music resource teachers may be approached for help.

Special thanks are extended to the following:

Harold Higa, Education Coordinator of the Honolulu Symphony who wrote the booklet;

Assistant Conductor Henry Miyamura who is also the artistic director of the symphony ensembles;

Bill Lightfoot, Orchestra Manager who provided encouraging words;

Nancy Hiu, Educational Specialist, Communicative Arts, who helped with her invaluable editorial advice;

Lloyd Inaba, State Music Educational Specialist who provided consultative services in the production of the booklet; and

Allen Emura, State Reprographic Specialist who designed the cover of the booklet.

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THE HONOLULU SYMPHONY MUSICIANS

How many musicians are there in the Honolulu Symphony?

For the subscription Concert Series at the Blaisdell Concert Hall, the Honolulu Symphony may require as many as 90 musicians. The nucleus of the orchestra, however, is made up of 57 professionals who are full-time members.

In what other kinds of things are musicians involved?

Many professional musicians teach privately during their spare time, but also devote much of their time to practicing and performing.

The musicians also have a wide variety of interests. They may spend a lot of time reading and writing. They may be involved in arranging or composing music, or they may spend time sailing or scuba diving. Playing softball is a favored recreation of many of the symphony musicians.

How does one become an orchestra musician?

Most of the musicians of the symphony have attended colleges or conservatories to earn a degree or two in music. Although musicians are said to "play" music, they must work hard to develop and maintain their musical abilities and skills. A typical day for an orchestra musician might include a three-hour rehearsal in the morning followed by two hours of individual practicing after lunch and a two-hour concert in the evening.

Being dedicated to their art, most musicians reinvest much of their earnings in recordings, printed music or better instruments.

Who provides the instruments for the musicians?	Except for very large percussion instruments such as chimes, timpani, celesta, bass drum, and gongs, musicians purchase their own instruments. Many own two or more instruments. For example, in order to make his or her job less complicated, a clarinetist might own an instrument pitched in "Bb" and another in "A." A trumpeter might own a standard "Bb" trumpet plus one or two smaller (and higher pitched) instruments.
How expensive are the instruments?	The dollar value of the instruments vary widely; many string players own instruments that range between fifteen to twenty thousand dollars. Because of the high risk, expensive instruments are seldom taken on inter-island concert tours.

THE HONOLULU SYMPHONY IN-SCHOOL ENSEMBLES

What does the word "ensemble" mean?

Ensemble means "together." Thus when a group of musicians plays together, they are said to be a part of an ensemble. Although an ensemble could be a fairly large group, the Honolulu Symphony In-School Ensembles are small groups that perform "chamber music."

What is "chamber music"?

In the past, bedrooms were called "chambers." Today a chamber refers to a small room. As its name implies, chamber music is performed by a few musicians for a small audience in a small room. Chamber music is played by ensembles.

Great composers like Mozart, Beethoven, and Brahms have written a lot of chamber music. Gifted composers feel challenged by the limited means available in chamber music. There are no sure-fire gimmicks such as "seventy-six trombones," loud cymbal crashes or a dozen herald trumpets at one's disposal. Johann Sebastian Bach has written some great pieces for a single violin and also for a single cello!

What are the purposes of the In-School Ensembles?

One purpose of the In-School Ensembles is to provide an intimate musical experience for students. Music performed by a few musicians for a small audience in a small room enables the students to view the musicians and their instruments at close range. Unlike a large hall where the sound of a string ensemble might seem to be "out there and away," in a smaller room, both students and musicians share the acoustical space as though in a self-contained sound box. Consequently, a school cafeteria would not be an appropriate place for a chamber concert, especially if it involves an ensemble such as a string quartet which has a limited dynamic range.

Another purpose of the ensembles is to reinforce the in-hall Young People's Concerts of the Honolulu Symphony by demonstrating the characteristics of the orchestral instruments, and by developing an interest in orchestral music. The loose format of the ensemble concerts makes it easier for musicians to establish rapport with students and this, in turn, creates ample opportunities for student participation.

The most important purpose of the In-School Ensemble is its role as a live resource for the classroom teacher and/or the music resource teacher.

How many In-School Ensembles are there?

There are ten ensembles, four percussion clinicians, and a solo viola. Since strings represent the largest group in the orchestral family, there is a greater number of string ensembles.

The ten ensembles are:

- two woodwind quintets each made up of a flute, oboe, clarinet, bassoon and French horn;
- a brass ensemble of nine players ("nonet") with three trumpets, two French horns, three trombones and a tuba; and
- seven string ensembles. One of these has a clarinet, another an oboe, and another a harp.

Since percussion instruments tend to be large and bulky, they are difficult to load and expensive to transport. For these reasons, the four members of the percussion section serve as individual teachers or clinicians and each player meets with a separate class in a school to demonstrate a wide variety of smaller percussion instruments and techniques of playing them.

The brave violist performs all by himself.

How is orchestral playing different from ensemble playing?

In an orchestra, the parts are often doubled. This simply means that there are many people in the orchestra playing the same notes. To understand this better, imagine a dozen actors on stage reciting the same lines in unison. This technique played an important part in Greek drama. Likewise, seated in the first violin section of an orchestra are a dozen or more players who want to please the conductor by trying to play like ONE perfect instrument.

There is some unison playing in an ensemble too, but much of the time, each musician is responsible for playing notes that no one else has in the ensemble. Good musicians enjoy the one-on-a-part demands of ensemble playing because in a real sense they are re-creating the composer's music with the other members of the group.

AUDIENCE RESPONSIBILITY AND LISTENING

Why are we expected to listen quietly to a concert when this is not expected at parties?

Parties such as birthdays and weddings celebrate special events. If there is a combo at such a party it usually stays in the background because the celebration is more important than the entertainers. On the other hand, an ensemble concert spotlights music and music-making. The musicians are there to feature fine music.

How can we learn to become better listeners?

Someone said, "music begins with silence." Almost without exception a valuable painting is carefully placed in an elegant frame. For fine music to be fully appreciated, it too must be framed--framed in silence.

Most of us are eye-minded. This means that seeing comes more naturally for us than listening. We may remember what a person looks like but have difficulty recalling his or her name. Like those who favor the right hand over the left, we trust seeing more than we do listening. Even at that, there is a lot our eyes miss if we are not concentrating. For example, everyone knows what a dollar bill looks like. Yet, if we are asked to recall the words or describe the pictures that are on a dollar bill, most of us would fail.

Listening to an ensemble takes concentration. In order to follow a piece of music, the audience has to listen and "take hold" of the sounds. To help students take hold of the sounds, a purpose for listening should be established. Students can be asked to listen for repetitions in rhythm, melodic pattern, or instrument combination. (See Suggested Classroom Activities.)

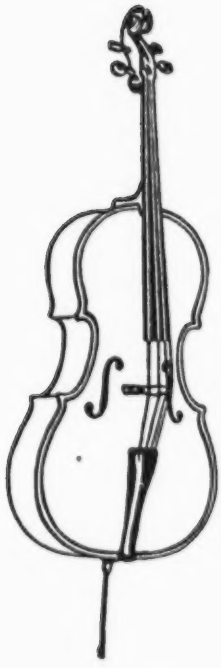
INSTRUMENTS OF THE ENSEMBLES

The String Family

Members of the string family arranged from the highest to lowest pitch range are:

violin

viola



cello (or violoncello)

bass (or bass viol)

How are sounds produced on string instruments?

A chalk screeches when pushed across a chalkboard. The noise made by the swishing of windshield wiper blades gets louder as the windshield gets drier. Both of these sounds are produced by friction, by the rubbing or scraping of two objects. The beautiful sounds made by string instruments are produced by the same process.

As a wiper blade tends to slide smoothly and quietly over a wet windshield, a bow freshly strung with horse hair will only produce a faint whisper. Thus rosin has to be applied on the bow hair to create the friction necessary to produce the sounds. Rosin is the sticky stuff that bulges out of pine tree trunks. Although synthetic "hair" is often used today, real Arabian horse hair (from the tail) is still considered best.

What are the different techniques used in playing string instruments?

The instruments of this family may be bowed or more rarely strummed like an ukulele. Plucking on the strings produces a crisp sound called "pizzicato." The third movement of Tschaikowsky's Fourth Symphony requires the strings to play pizzicato throughout a long section. However, most often strings play "arco" or "with the bow."

Another string technique called "tremolo" uses a small, rapid alternating bow stroke which creates a mysterious ghost-like effect.

Even the stick of the bow is occasionally used to tap the strings lightly. Rarely, the stick rather than the hair is drawn over the strings to create a misty, dreamy effect.

The string player's left hand is also trained to do many interesting things. In addition to producing high or low pitches, the left hand can slide on strings to make a wailing, siren-like sound. At times the music calls for plucking by the left hand.

A most interesting technique is the rapid shaking of the string player's left hand. This "vibrato" (to vibrate) movement adds color to the tone and therefore makes the playing more expressive. A singer's use of vibrato is such a natural part of his or her art that it goes unnoticed until we hear the deliberate use of non-vibrato which is only used for special effect.

String musicians are so accustomed to using vibrato, they have difficulty turning it off. If there is an opportunity to do so, you may want to ask a string player to play non-vibrato. A string ensemble performing non-vibrato sounds much like a reed organ.

Why do beginning string players have difficulty playing in tune?

Unlike guitars or ukuleles, bowed strings are "fretless." Frets are thin brass ridges on the fingerboard of instruments that provide a fixed spot for the fingers to produce the desired pitches. The violin and other strings have a finger board without frets. There are no fixed, built-in spots which the fingers can locate. Since all judgments about where to place the fingers are made by ear, it may take several years before one is able to play well in tune.

Are the tiny violins very small children are sometimes seen playing toy or real instruments?

If the instruments are tuneable and playable they are not toys. Although a full-sized violin for adults is about 14 inches in length, there are smaller violins for an intermediate school student, a still smaller one for someone in upper elementary, down to a tiny 1/16th sized keiki violin for a child around two years old. Although most band instruments are built for older students, string instruments are available for the tiniest tot.

What are the various kinds of string ensembles?

The traditional string quartet which has been a favorite combination of many composers for nearly two hundred years is made up of the following instruments:

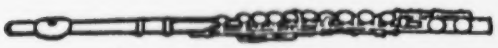
1st violin,
2nd violin,
viola, and
cello.

The seven string ensembles of the Honolulu Symphony are:

- 2 traditional string quartets,
- 1 string quartet with a string bass in place of the cello,
- 1 string quintet which includes a harp ("harp quintet"),
- 1 string quintet which includes a string bass,
- 1 string quartet with a clarinet added ("clarinet quintet"), and
- 1 string quartet with an oboe added ("oboe quintet").

The Woodwind Family

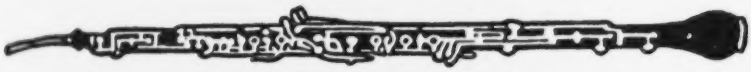
The instruments of the woodwind family listed from the highest to lowest pitch range are:



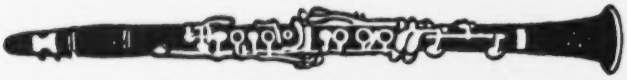
flute

piccolo

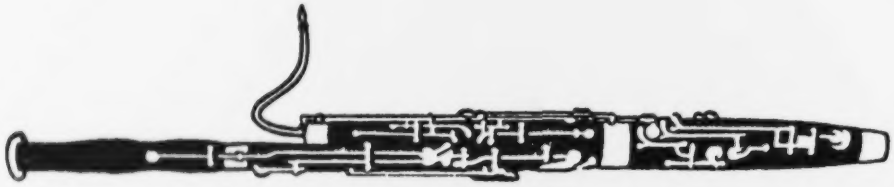
oboe



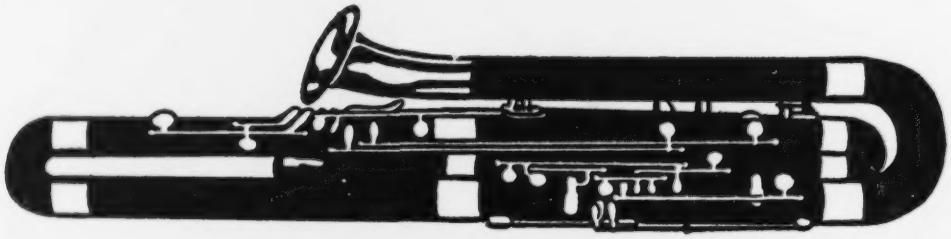
English horn



clarinet



bassoon



contra-bassoon

Why do the recorder and the flute sound alike?

Although a flute is held sideways (horizontally) and edge-blown, and a recorder held vertically and end-blown, they both belong to the recorder group. End-blown means the blow-hole or embouchure is at the end (top) of the recorder. The embouchure on a flute is a side hole located about four inches from the left tip of the instrument.

Why is the flute included in the woodwind family when it is made of metal?

In earlier days, flutes were made of wood. Even today, black wooden flutes may occasionally be seen. As an experiment, a member of the woodwind quintet named "Soni Ventorum" has carved a head joint (the blow-hole joint) out of keawe wood. On a recent visit to Hawaii, he demonstrated the flute using the keawe wood head-joint.

What is the small instrument that flute players occasionally play?

The tiny fife-like instrument is the "piccolo" which produces a high, shrill sound which can be heard above all the instruments in the ensemble or the orchestra.

What is the difference between an oboe and an English horn?

Although these instruments are quite similar, the English horn is larger, has a pear-shaped bell, and a metal crook which holds the reed. Since it is neither English nor a horn, the origin of the name is puzzling. One explanation is that the name English horn is used simply to distinguish it from the French horn.

What is the difference between an oboe and a clarinet?

A clarinet's reed is clamped firmly to a tapered mouthpiece which in turn is attached to the clarinet; whereas, an oboe's reed IS the mouthpiece. In addition, the thin double reed of the oboe is much smaller than the black, cigar-sized mouthpiece of the clarinet.

Unlike the piercing, nasal sound of the oboe, the clarinet has a "liquid" tone, like drops of water falling gently into a tiny pool.

What is the similarity between the oboe and the bassoon?

A larger instrument of the clarinet family is the basset horn or alto clarinet. A considerably larger instrument is the bass clarinet.

The bassoon, which is the "papa" of the woodwind family belongs to the oboe group since it too has a double reed. Bassoons are able to "sing" as well as the best male singers. Yet on the lower tones, they're able to growl like a huge, menacing dog. The "grand papa" of the woodwinds is the contra-bassoon. On its lowest tones, the contra-bassoon can growl like a lion. Bassoons are always visible since they stick out like smokestacks in the middle of the orchestra.

What is the instrumentation (combination of instruments) of the symphony woodwind ensembles?

There are two symphony woodwind quintets. Each has the following traditional instrumentation:

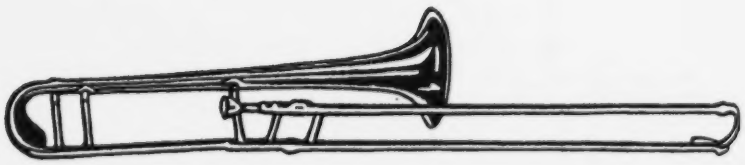
flute,
oboe,
clarinet,
bassoon, and
French horn.

The Brass Family

Members of the brass family arranged from the highest to lowest pitch range are:

trumpet

French horn



trombone

tuba

What do all brasses have in common?

All so called "brass" instruments are made of some kind of metal but not necessarily brass. A common feature of all brasses is the mouthpiece which is either shaped like one-half of an hourglass or a tiny ice cream cone.

How is sound produced on brasses?

The player begins by placing his lips against the opening of the mouthpiece. Then by forcing air through pressed lips, he creates a "bumble bee buzz" which causes the air in the instrument to vibrate.

Is a bugle part of the brass family?

A bugle is a brass instrument but it is not normally used in the orchestra or the symphony ensembles. Since it has no valves, a bugle is limited to four or five notes.

Bugles are often associated with warefare mainly because their powerful sounds can cut through the noisy confusion of combat to signal "charge" or "retreat." (See Suggested Classroom Activities.)

What is the difference between a bugle and a trumpet?

The obvious difference is that a trumpet has valves and a bugle does not. The valves and additional tubing make it possible for the average trumpeter to play 24 or more notes compared to four or five on a bugle.

Is a trumpet different from a cornet?

The cornet and trumpet are closely related and are played in the same way. However, there is a basic difference in the tone color of these instruments. The cornet can be recognized by its mellow sound, whereas the trumpet has a more brilliant tone. Visually, the cornet appears stubby compared to the more slender trumpet.

Who would be considered the "mellow fellow" in the brass section?

The French horn can sound brassy but it could also sound mellow. Because its tone blends with woodwinds as well as brasses, the French horn has been "adopted" by the woodwind family. It is an important member of both the brass and woodwind ensembles.

Do French horns have valves?

Athough the modern French horn has three or even four valves, many years ago only "natural" horns (without valves) were available. Unlike buglers, valveless horn players were able to play scales on natural horns by pushing their right hand in or out of the bell in different degrees. With our valve instruments of today, the right hand is used to change the tone quality and also to adjust the pitch of notes that are not perfectly in tune. If the bent tubing on a French horn is straightened out, there would be over 16 feet of tubing!

What is the function of the slide on a trombone?

The slide on a trombone serves the same function as valves on other brass instruments. By pushing and pulling on the slide to change the length of the tubing, the trombonist is able to play high or low pitches. Incidentally, there is a trombone that does have valves. It is called a "valve trombone."

Which is the lowest-pitched instrument in the brass family?

The tuba is the largest and lowest of the brasses. The "brother" of the tuba is the Sousaphone which is carried on the shoulder of a musician in marching bands. The tubing on a tuba is about two feet shorter than that of a French horn.

What is the instrumentation of the symphony's brass ensemble?

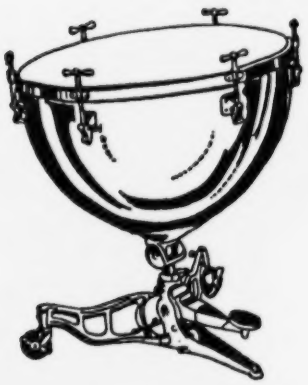
A group of symphony musicians have formed an independent brass quintet known as The Honolulu Brass. Like most brass quintets, The Honolulu Brass follows the traditional instrumentation which is:

two trumpets,
French horn,
trombone, and
tuba.

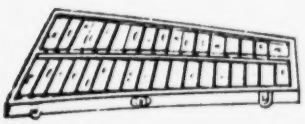
The Percussion Family

There are more percussion instruments than can be covered in this booklet. Basically, the percussion family may be divided into two basic groups as follows:

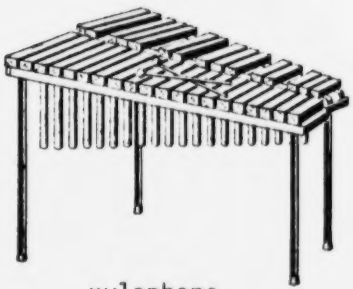
Definite Pitch Instruments



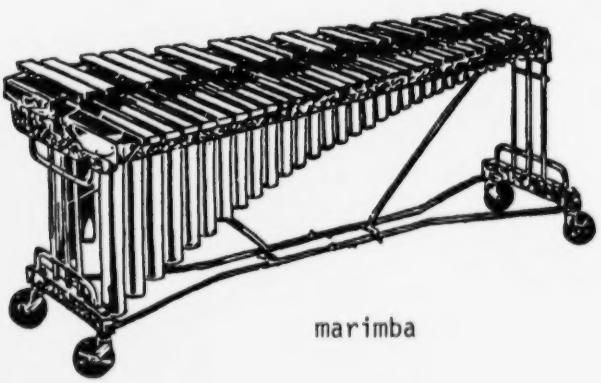
timpani



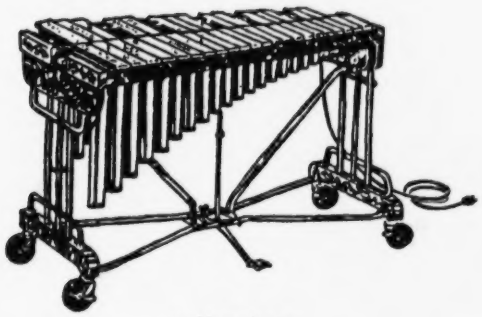
orchestra bells ("glockenspiel" in German)



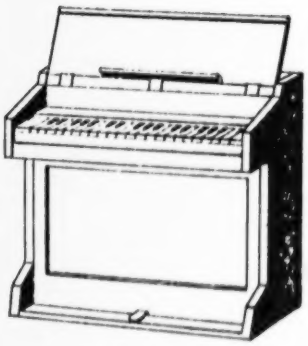
xylophone



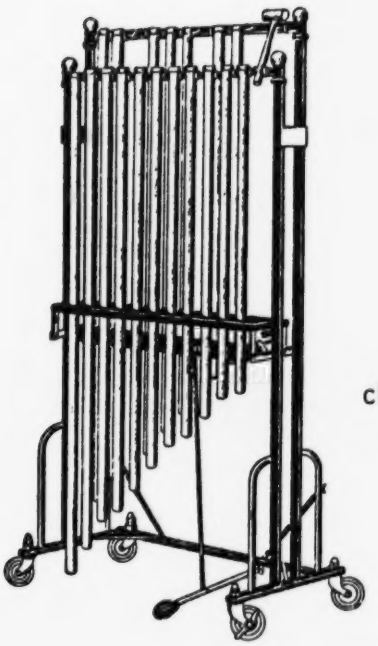
marimba



vibraharp

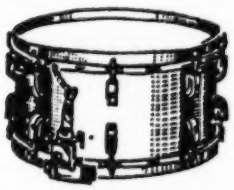


celesta



chimes

Indefinite Pitch Instruments



snare drum

bass drum

What does definite pitch mean?

The term refers to sounds that have a pitch which can be matched by our voices.

Why is a timpani called "kettledrum"?

A timpani is called "kettledrum" because it looks a lot like a huge soup kettle. Kettledrums have a definite, singable pitch. For example, two "timps" may be tuned to play the "ding, dong, ding" of "Are You Sleeping" very well.

Why does the timpanist look busy even when he is not playing?

Standing in the middle of three or even four kettledrums, a timpanist is often seen crouched over close to the head of the timps as though looking for a contact lens. Actually, since timps often need to be re-tuned in the middle of a piece, the timpanist brings his ear close to the head of the instrument in order to re-tune it softly without distracting the conductor or the audience.

Why might orchestra bells be nicknamed "bar bells"?

Orchestra bells have nothing in common with our mental picture of bells shaped like Christmas bells or the Liberty Bell. Orchestra bells or "glockenspiel" are made of steel bars (bar bells) placed close together on a flat surface. Of the two rows of bars, one serves the function of the black keys of the piano and the other the white keys.

How is the glockenspiel played?

There is a type of glockenspiel that is encased in a black box slightly bigger than a toy piano. It is equipped with keys and played like a piano. Generally, however, orchestra bells are struck with mallets made of either rubber, wood, yarn, or brass. Therefore, they are listed under mallet instruments.

What are some of the other mallet instruments?

Other instruments built on the principle of orchestra bells are the xylophone and marimba. Like the glockenspiel, these are definite pitch instruments with bars made of wood rather than steel. The vibraharp or vibraphone is a mallet instrument which has an electrical mechanism which produces vibrato.

What is the instrument that looks like a small piano or reed organ?

The celesta which looks like a small upright piano may be called a "keyboard-glockenspiel" since it uses steel bars like the glockenspiel but is played like a piano.

What is the tall instrument that looks like a display rack of pipes in a plumbing shop?

The large instrument with shiny chrome pipes suspended in a metal frame is the chimes or tubular bells. The bells are struck with one or two wooden mallets that look like a gavel.

What does indefinite pitch mean?

The term refers to sounds that do not have a pitch that we can match with our voice. A snare drum falls in this category since its vibrations are irregular. Like clapping or foot tapping, a snare drum produces noise rather than a singable tone.

How does a snare drum "work"?

The top of the snare drum is aptly called the "batter head" and the bottom the "snare head." Snares are made out of gut or steel strings placed in a column about an inch wide. This band of wires is stretched tightly across the bottom of the drum. Snares produce the dry, ratchety sound of this drum which is sometimes called "street drum."

Why is it called a "street drum"?

The snare drum is called a "street drum" because it is an important part of parades and marching bands. They are loud enough to be heard by all and the crisp, snappy sound helps parade units to achieve precision in their marching.

Are the bass drum and snare drum related?

A bass drum is like a huge snare drum without snares. However, snare drums are played by a pair of drum sticks while a bass drum is normally played by a single, padded beater. A bass drum also helps marching units by pounding and accenting the strong beats.

SUGGESTED CLASSROOM ACTIVITIES

Pre-Concert

The suggested activities may be better suited for grades 4-6. Where possible, kindergarten and grade 1-3 teachers are encouraged to adapt them to their needs. Teachers are also encouraged to use the resources listed at the end of the booklet for either pre- or post-concert activities.

1. Listening

   The following are examples of listening exercises that can be carried out to help improve students' listening skills.

   a. Very often what appears to be new in a piece is merely a variation of something old, that is, something already stated musically in the piece. A simple example is the middle section of "Twinkle, Twinkle, Little Star." The phrases,

      "Up above the world so high,
      like a diamond in the sky..."

      represent the contrasting section (something new), but it is actually "something old" since it is merely a repetition of the pattern, "how I wonder what you are," at a higher pitch. Thus, the cliche, "same but different," is a common occurrence in music.

      Ask students to identify the phrases (something new) that are repetitions of "something old."

   b. In the following layout of "America," the lines that are based on "something old" (mainly through repeated rhythm) are grouped in the left column. In considering the whole, notice that except for the two short cadences on the right which represent "something new," all phrases on the left share a basic rhythmic pattern.

      America

      My coun-try, 'tis of thee,

      Sweet land of lib-er-ty

      Of thee I sing.

      Land where my fathers died,

      Land of the pil-grims pride,

      From ev-'ry moun-tain-side

      Let free-dom ring!

Ask students to identify the phrases (something new) that are repetitions of "something old."

c. Have students analyze "Hawaii Ponoi" to differentiate repeated passages (old) from "something new." Help students to discover the rhythmic similarities between "America" and "Hawaii Ponoi."

2. Audience Responsibility

Discuss what is meant by the following sentence:

> There is something magical about silence in a room full of people; only the listener can "create" this silence.

Ask students to suggest ways of experimenting with their ideas on silence.

3. Follow up on Strings and the Principle of Sound by Friction

The following activity will help students understand how sounds can be produced by friction.

Obtain eight crystal wine glasses of uniform size and thickness. Leave one glass empty to represent the lowest pitch. Then fill the remaining glasses with water, increasing the volume in each succeeding glass, thereby allowing for the tuning of the set of glasses to a musical scale. By lightly rubbing the edge of the glasses with moist fingers, one or more students can produce beautiful sounds and play simple tunes.

4. Follow up on the Woodwind Family

The following activities will help students understand tone production on woodwind instruments.

a. Have students blow across the puka of a bottle so that they can have a general idea of what it feels like to blow on a flute.

b. Fill eight empty bottles with carefully measured amounts of water, tuning the set to pitches of a major scale. Eight students could then like a handbell choir play simple tunes such as "Joy to the World" or the "Marine's Hymn."

c. To discover how a double reed works, squeeze the tip of a straw and blow into the tip until a squeal is heard.

5. Follow up on the Brass Family

The following activities will help students understand tone production on brass instruments.

a. Ask students to help locate a conch shell that might be borrowed. It ought to be one that has already been perforated at the narrow end. Instruct students to blow and buzz through lips pressed against the narrow puka on the shell.

b. If a conch shell is not available, the same experiment can be done on a piece of garden hose with a funnel pushed in at one end, then blowing from the other end.

6. Making Instruments of the Percussion Family

Of all the instruments of the the orchestra, those of the percussion family are the easiest to make.

a. Coffee cans with or without the plastic cover, oatmeal boxes, gallon ice cream containers, or even a clean garbage can be used for drums. Students might suggest other objects that can be used.

b. Aluminum pizza platters of different sizes, pot covers, or rubbish can covers can be substitutes for cymbals or gongs.

c. A triangle can be shaped out of a metal rod about the thickness of a pencil. Metal tubes or bamboo stocks cut in different sizes can be used as chimes or a small marimba.

7. Sharing a Musical Instrument

Ask students to share a musical instrument which is kept at home. If the student is not able to demonstrate on it, perhaps a parent or older sibling could do so for the class.

8. Topic for Discussion

In what way would one expect a symphony ensemble to be different from a rock group?

Ensemble	Rock Group
-controlled volume	-unlimited volume
-controlled body movement	-uninhibited body movements
-balance between loud and soft playing	-seldom plays softly
-no singing (most likely)	-mostly singing
-instruments are not electrical	-instruments are electrically powered

Post-Concert

1. Students will notice that most of the musicians in an ensemble move their bodies while playing. Ask students what they think might cause them to do this.

   The origin of music is the dance. In wanting to fully express the life and spirit of music, musicians feel a strong urge to move with the ebb and flow of a piece.

2. An important part of developing musical maturity involves the ability to make intelligent choices in selecting music. The teacher is encouraged to discuss with students the following topics:

   a. students' favorite pieces and reasons for liking them,

   b. comparing and contrasting selected pieces, and/or

   c. students' favorite instruments.

3. Play recordings of ensembles and have students

   a. identify prominent instruments and instrument combinations, and/or

   b. identify repetitions heard in rhythm and melodic patterns.

4. Have students research and report on the following topics:

   a. story of Joshua and the City of Jericho,

   b. composer whose music was played by the ensemble, and/or

   c. favorite musical instrument.

5. Have groups of students compose a simple song using repetitions in rhythm and melodic patterns and have them play it for the class.

RESOURCE MATERIALS

16 MM Films

These films may be obtained from: Office of Instructional Services, Multi-Media Branch.

0312 THE BRASS CHOIR 11 min. J-H

Representative compositions featuring the choir are played by a full symphony orchestra. The timbres of various brass instruments are demonstrated--the brilliance of trumpets, the mellow quality of the horns, the rich power of the trombones, and the massive depth of the tuba. EBEC 1956

1456 INTRODUCING THE BRASSES 23 min. J-H-C

Illustrates the musical characteristics and operating principles of a brass quintet of two trumpets, trombone, french horn and tuba. Five compositions are played to demonstrate the voices of the instruments. IU 1957

4758 STRING SOUNDS 16 min. J-H-C

Illustrates the range of string sounds available, using different kinds of instruments, strings, and ways of making strings vibrate. Presents various performances to show the ways strings are bowed, plucked, scraped and struck to make music. Demonstrates basic principles of string instruments. CF 1968

1458 INTRODUCING THE WOODWINDS 23 min. J-H-C

Illustrates the musical characteristics and operating principles of the instruments of a woodwind quintet composed of flute, piccolo, bassoon, oboe, and clarinet. Includes the french horn. IU 1957

3231 THE WOODWIND CHOIR (2nd ed.) 11 min. E-J

Various woodwind instruments supported by full orchestras are shown and heard in typical passages from standard orchestra compositions. Tone quality and playing techniques are stressed. EBEC 1956

4717 PERCUSSION SOUNDS 16 min. E

Experiments with an intriguing array of familiar music. Shows percussion to have more musical potential than is often found in western music by presenting instruments from other cultures and a variety of unusual and standard instruments from our own. CF 1968

Recommended Recordings

An Introduction to Musical Instruments--Lerner Records Instruments of the Orchestra RCA LES-6000 (with illustrations and teacher's guide)

Young Person's Guide to the Orchestra by Benjamin Britten (many recorded versions available)

Filmstrips with Recorded Commentary

Music Spotlight Series Eye Gate (Percussion, Brass, Keyboard, Woodwinds)

Meet the Instruments Bowmar/Noble Records (Recordings with correlated filmstrips)

Books

Young People's Concerts Simon & Schuster (book with recordings)

An Introduction to the Instruments of the Orchestra (A Big Golden Book with Illustrations) by Alice and Martin Provensen

Sources for Pictures of Instruments

Bowmar/Nobel Inc.	4563 Colorado Blvd. Los Angeles, CA 90030
Conn Inc.	1101 East Beardsley St. Elkhart, Indiana 46514
Jam Handy Filmstrips	150 White Plains Rd. Tarrytown, N. Y. 10591
G. Schirmer Inc.	609 Fifth Ave. New York, N. Y. 10017